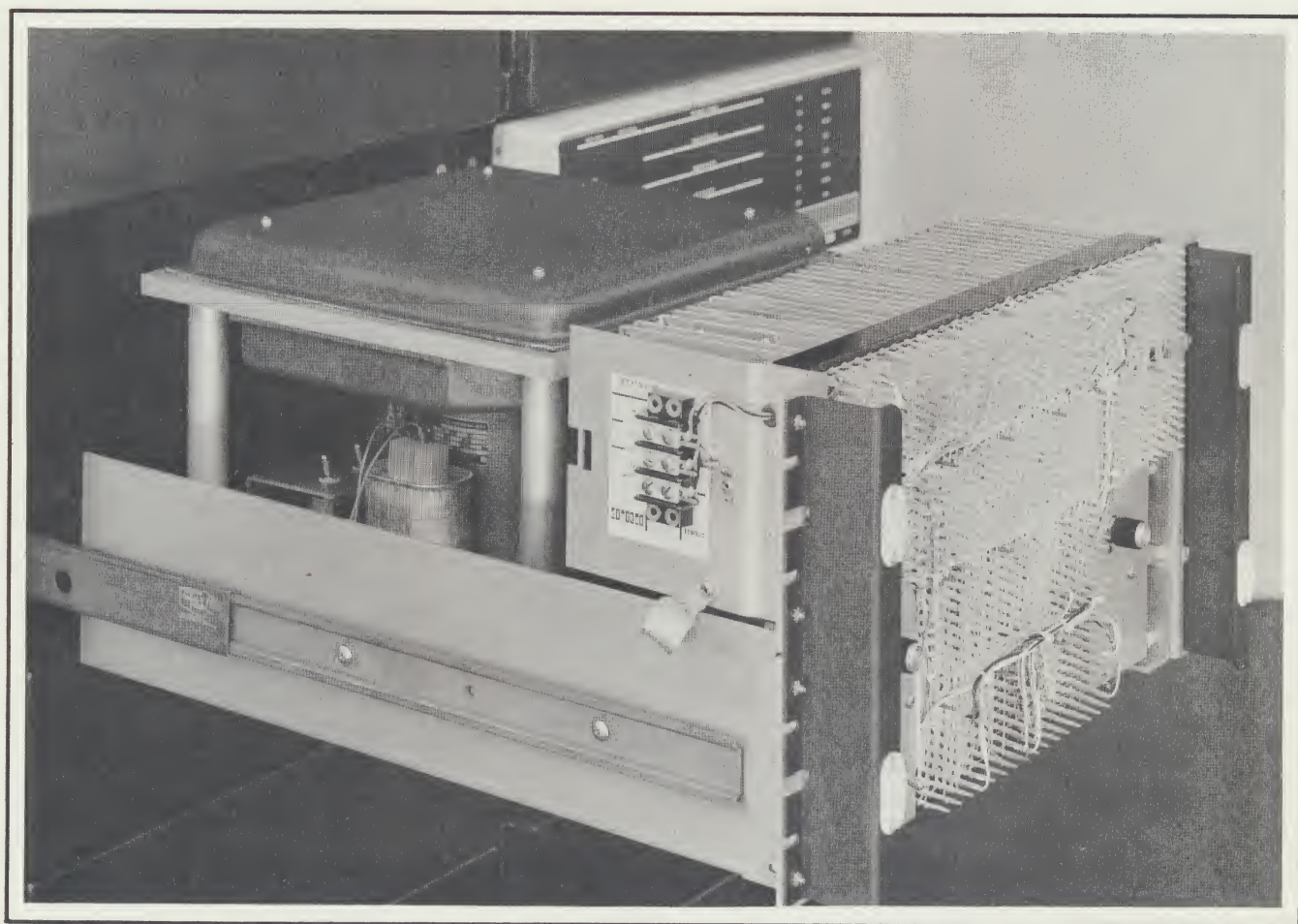


digital

**RANDOM ACCESS
DISC FILE
TYPE DF32 FOR
PDP-8 & PDP-8/S**



DIGITAL EQUIPMENT CORPORATION • MAYNARD, MASSACHUSETTS

The Type DF32 Disc File is a fast, low-cost, random-access, bulk-storage device and control for the PDP-8 and PDP-8/S computers. Operating through the 3-cycle break channel of these computers, the DF32 provides 32,768 13-bit words (12 bits plus parity) of storage, and is economically expandable to 131,072 using Expander Disc Type DS32.

Transfer rate of the DF32 is 66 μ sec per word; average access time is 16.67 msec for 60-cycle power (20 msec with 50-cycle power).

Two basic assemblies comprise the DF32: the storage unit with read/write electronics, and computer interface logic. The storage unit contains a nickel-cobalt plated disc

driven by a hysteresis synchronous motor. Data is recorded on a single disc surface by 16 read/write heads which are in permanent or fixed position. A photo-reflective marker is used on the disc's outer perimeter to denote beginning and end of timing and address tracks.

Disc motor and shaft, read/write data heads, timing and address heads, and photocell assembly are mounted to a base plate. The base plate is mounted on a rack assembly which permits sliding the unit in and out of a standard Digital Equipment Corporation cabinet.

The disc is designed for rack mounting in a 19 inch relay rack. Overall dimensions of the DF32 are 10-1/2 inches high, 19 inches wide, and 23-5/8 inches deep.

SPECIFICATIONS

Storage capacity	DF32 32,768, 13-bit words. DS32 32,768, 13-bit words (up to 3 DS32 units may be added to the DF32, giving a maximum capacity of 131,072 words)	Heat dissipation	500 watts
	60 cycle power 50 cycle power	Power requirements	118v, 50 or 60 cycle, single phase, ac Logic Power: 3 amps at +10v 6.2 amps at -15v
Data transfer rate	66 μ sec per word 80 μ sec per word	Mechanical dimensions	DF32 (32K disc and control) 10-1/2 inches high 19 inches wide 20-3/4 inches deep 21-1/4 inches deep from mounting surface 2-3/8 inches in front of mounting surface DS32 (32K expander disc surface) 10-1/2 inches high 19 inches wide 20-3/4 inches deep 21-1/4 inches deep from mounting surface 2-3/8 inches in front of mounting surface
Average access time	16.67 msec 20.0 msec		
Write lock switches	Inhibit writing on lower and/or upper 16K of any 32K disc surface, and may be used to inhibit one or more 32K discs in an expanded configuration.		
Addressing scheme	Random or absolute addressing from 0 to 32K words with variable block sizes from 1 word to 4096 words.		
Data assembly	Read/write on disc is serial, with external transfer parallel by word.		
Data tracks	16		
Words per track	2048	Mechanical mounting	Chassis track slides provided for mounting in 19 inch relay rack
Recording method	NRZI	Price	DF32, 32K disc and control - \$6000.00* DS32, 32K expander disc surface - \$3000.00
Density	1100 BPI		
Timing tracks	2 plus 2 spare		
Operating environment	Maximum Temperature: 32 to 130° F Recommended Temperature: 70 to 85° F Relative Humidity: 20 to 80%		

*PDP-8/S requires data break option in addition.